

Date Opened: 13 March 2013

Job #: 497

Project: Mounting Beams

Type: Bell 206B

Approval: SH09-5

Drawing List: DCL497-12, Rev. 1

<u>Fabrication and Assembly Drawing(s)</u>	<u>Description</u>
49730, Rev. 2	Forward Beam Fabrication
49732, Rev. 0	Aft Beam Fabrication

Complete material tracking information on attached pages.

Work Order pre-completion Inspection:

Project is on Approval Limitation Record:

Y

Document Control List revision level matches (or exceeds) STC:

Y

Drawings revision levels match Document Control List:

Y

Purchase order or Work order source is recorded for each part/ass'y:

Y

Tests and inspections specifically called out on drawings are complete:

Y

Release tags associated with all fabricated parts are attached:

Y

All mounting hardware and supplies are included:

Y

List all non-conformities raised: _____

Inspector Signature: _____

Date: _____

Drawing: **49730 Revision 2**
 Assembly: **49730-01 Forward Beam Assembly**
 Batch Quantity: **2**

Qty	Part #	Description	Material	P.O./W.O.	Checked
2	49730-01	Forward Beam Assembly			
. 1	49730-02	Down Tube	1x2x0.12 Tube, 304 Stainless Steel	12091	
. 1	49730-03	Tube	1x2x0.12 Tube, 304 Stainless Steel	12091	
. 1	49730-04	Cap	0.050 Sheet, 321 Stainless Steel	10037	
. 2	69830-15	Bushing	0.625 x 0.12 Tube, 304 Stainless Steel	12093	
. 1	69830-16	Strap	0.100 Sheet, 304 Stainless	10036	
. 1	69830-07	Block	0.188 x 0.75 Bar, 304 Stainless	9011	
. 1	69830-19	Cap	0.050 Sheet, 321 Stainless Steel	10037	
. 1	69830-20	Cap	0.050 Sheet, 321 Stainless Steel	10037	
. 2	69830-11	Guide	0.75 x 0.065 Tube, 304 Stainless Steel	12093	
. 2	69830-21	Stop	0.625 Rod, 6061-T6 Aluminum	WO2012-45	
. 2	69830-22	Knob	0.75 Rod, 6061-T6 Aluminum	WO2012-45	
. 2	69830-23	Spring	15mm x 70mm Spring, Stainless Steel	13032	
. 2		#10-32 C'sunk screw	Stainless Steel	13027	
. 2	MS21044C3	Nut		13048	

Processes	Per	Mat'ls Used	Initials
Welding	AMS 2685C	Welding Rod ER308L	
Powder Coat	Drawing 49730	PO 13022	
Final Inspection	Drawing 49730		

Tag incomplete parts with Work Order # when stored between processes.

Tag complete parts / assemblies with Release Tag prior to storage.

Drawing: **49732 Revision 0**
 Assembly: **49732-01 Aft Beam Ass'y**
 Batch Quantity: **2**

Qty	Part #	Description	Material	P.O./W.O.	Checked
2	49732-01	Aft Beam Assembly			
. 1	49732-02	Down Tube	1x2x0.12 Tube, 304 Stainless Steel	12091	
. 1	49732-03	Tube	1x2x0.12 Tube, 304 Stainless Steel	12091	
. 1	49732-04	Tube	1x1.5x0.12 Tube, 304 Stainless Steel	8081	
. 1	49732-05	Cap	0.050 Sheet, 321 Stainless Steel	10037	
. 2	69830-15	Bushing	0.625 x 0.12 Tube, 304 Stainless Steel	12093	
. 1	69830-16	Strap	0.100 Sheet, 304 Stainless	10036	
. 1	49732-08	Upper Guide	1x2x0.12 Tube, 304 Stainless Steel	12091	
. 2	78633-03	Guide	1x0.125 Bar, 304 Stainless Steel	12018	
. 2	78633-05	Stop Bracket	0.75x0.065 Sqr. Tube, 304 Stainless	10128	
. 1	69830-19	Cap	0.025" Sheet, 321 Stainless Steel	10037	

Processes	Per	Mat'ls Used	Initials
Welding	AMS 2685C	Welding Rod ER308L	
Powder Coat	Drawing 49732	PO 13022	
Final Inspection	Drawing 49732		

Tag incomplete parts with Work Order # when stored between processes.

Tag complete parts / assemblies with Release Tag prior to storage.



Description: _____

[illegible]

Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: AFT BEAM

Manufacturer: AERO DESIGN

Part No.: 49732-01 Serial / Batch No.: 4/K

TTSN: N/A TSO: N/A Rem.: N/A

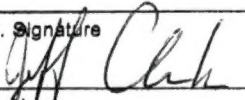
Work Order No.: 2013-10

Remaining Tasks to be Performed: NONE

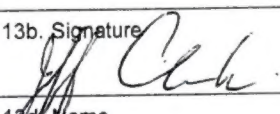
Signature: C Carpentier

Date: Aug 6 / 13 Lic. No. / ACA AD04

Serviceable

1. Approving Civil Aviation Authority/Country Transport Canada		2. AUTHORIZED RELEASE CERTIFICATE FORM ONE			3. Form Tracking No.	
4. Organization Name and Address AERO Design Ltd. - 2013 39 th Avenue NE, Calgary, Alberta, T2E 6R7					5. Work Order/Contract/Invoice WO 2013-10	
6. Item	7. Description Forward Beam	8. Part Number 49730-01	9. Qty. 1	10. Serial/Batch No. N/A	11. Status/Work New	
12. Remarks						
13a. Certifies that the items identified above were manufactured in conformity to:			14a. <input type="checkbox"/> CAR 571.10 Maintenance Release <input type="checkbox"/> Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, has been performed in compliance with the Canadian Aviation Regulations.			
<input checked="" type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Not approved design data specified in block 12.						
13b. Signature 		13c. Approved Organization Number AMF 73-04		14b. Signature		14c. Approved Organization Number
13d. Name Jeff Clarke		13e. Date (dd/mmm/yyyy) 20 Mar 2013		14d. Name		14e. Date (dd/mmm/yyyy)
<p style="text-align: center;">Installer Responsibilities</p> <p>This certificate does not constitute authority to install.</p> <p>Installers working in accordance with the national regulations of a country other than that specified in block 1 must ensure that their regulations recognize certifications from the country specified.</p> <p>Statements in blocks 13a or 14a do not constitute installation certification. In all cases, the technical record for the aircraft must contain an installation certification issued in accordance with the applicable national regulations before the aircraft may be flown.</p>						

ROCKY MOUNTAIN ROTORS

1. Approving Civil Aviation Authority/Country Transport Canada		2. AUTHORIZED RELEASE CERTIFICATE FORM ONE			3. Form Tracking No.	
4. Organization Name and Address AERO Design Ltd. – 2013 39th Avenue NE, Calgary, Alberta, T2E 6R7					5. Work Order/Contract/Invoice WO 2013-10	
6. Item	7. Description	8. Part Number	9. Qty.	10. Serial/Batch No.	11. Status/Work	
	Aft Beam	49731-01	1	N/A	New	
12. Remarks						
13a. Certifies that the items identified above were manufactured in conformity to: <input checked="" type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non approved design data specified in block 12.				 14a. <input type="checkbox"/> CAR 571.10 Maintenance Release <input type="checkbox"/> Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, has been performed in compliance with the Canadian Aviation Regulations. 		
13b. Signature		13c. Approved Organization Number		14b. Signature		14c. Approved Organization Number
		AMF 73-04				
13d. Name		13e. Date (dd/mmm/yyyy)		14d. Name		14e. Date (dd/mmm/yyyy)
Jeff Clarke		20 Mar 2013				
Installer Responsibilities						
This certificate does not constitute authority to install. Installers working in accordance with the national regulations of a country other than that specified in block 1 must ensure that their regulations recognize certifications from the country specified. Statements in blocks 13a or 14a do not constitute installation certification. In all cases, the technical record for the aircraft must contain an installation certification issued in accordance with the applicable national regulations before the aircraft may be flown.						

Rocky MNTN ROTORS

INSTALLATION

0

NOTES:

- EXTERNAL ATTACHMENT PROVISIONS INSTALLED IN ACCORDANCE WITH DRAWING 49701 OR 49703 IS MANDATORY PREREQUISITE FOR THIS INSTALLATION.
- HIGH SKID GEAR INSTALLATION IS MANDATORY PREREQUISITE FOR THIS INSTALLATION.

WEIGHT AND BALANCE

ITEM	DESCRIPTION	WEIGHT (LB)	LONGITUDINAL		LATERAL	
			ARM (IN)	MOMENT (LB-IN)	ARM (IN)	MOMENT (LB-IN)
02	FORWARD BEAM	11.5	76.4	878.6	12.7	146.2
03	AFT BEAM	10.5	129.1	1355.6	13.6	142.8
04	EXTERNAL ATTACH. PROV. (49701-01)	4.1	81.7	331.9	0	0
01	MOUNTING PROVISIONS INSTALLATION	26.1	98.3	2566.1	11.1	289.0
02	FORWARD BEAM	11.5	76.4	878.6	12.7	146.2
03	AFT BEAM	10.5	129.1	1355.6	13.6	142.8
04	EXTERNAL ATTACH. PROV. (49703-01)	5.3	79.7	423.8	0	0
01	MOUNTING PROVISIONS INSTALLATION	27.3	97.4	2658.0	10.6	289.0

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APPROVALS	DATE
DRAWN: JEFF CLARKE	06 OCT 2008
CHECKED: E. BURGAIN	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2° X.XX ±0.03 X.X ±0.1	

AERO DESIGN LTD.

CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAR 290M
 2013 - 39TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6R7
 tel: (403) 250-8027 fax: (403) 250-8333 www.aerodesign.ca

BELL 206B QUICK RELEASE MOUNTING PROVISIONS BEAMS INSTALLATION

NOT TO SCALE	DWG. SIZE	DWG. NO.	REV.
SHEET 2 OF 2	A4	49702	0

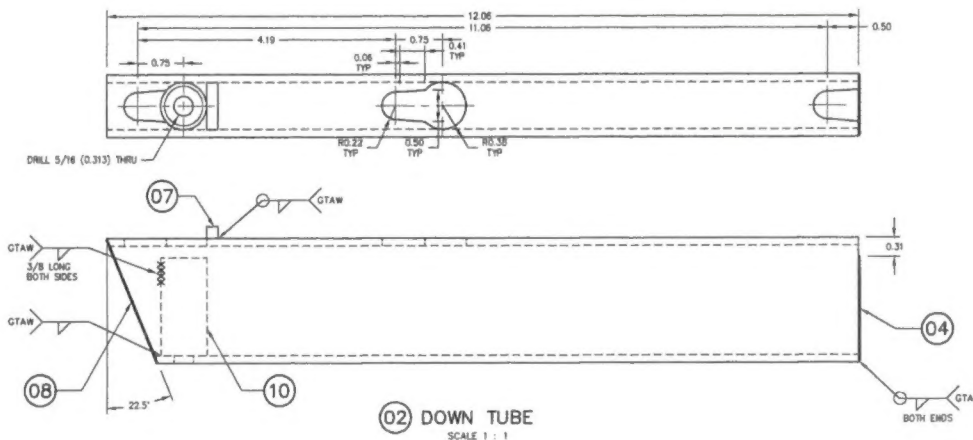
(01) FORWARD BEAM ASSEMBLY

NOTES

1. REMOVE ALL BLURS AND BREAK SHARP EDGES.

NOTES

1. REMOVE ALL BURRS AND BREAK SHARP EDGES.
2. WELDING OF STEEL TO BE COMPLETED BY GTAW METHOD TO AMS2685C.
WELDING ROD SHALL CONFORM TO ER308L OR EQUIVALENT FOR STAINLESS STEEL.
3. ALL STEEL PARTS TO BE THOROUGHLY DEGREASED AND POWDER COATED PRIOR TO INSTALLATION.

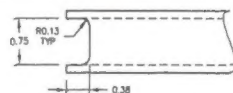


② DOWN TUBE
SCALE 1 : 1

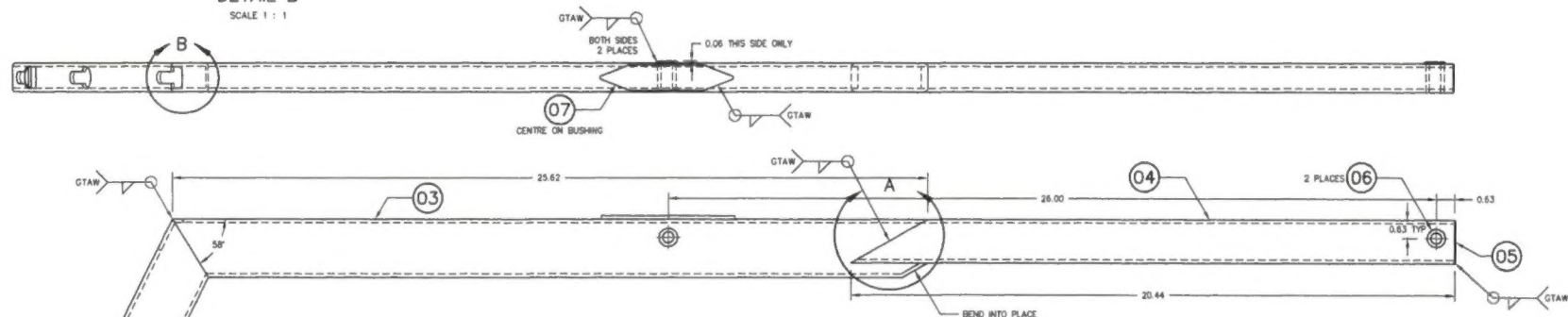
SCALE 1 : 1

	MS1044C3	NUT		STAINLESS STEEL	COMMERCIAL	15mm x 70mm SPRING
1	#10-32	C/SUNK SCREW		STAINLESS STEEL	COMMERCIAL	#0.75 RND
1	19830-23	13 SPRING		STAINLESS STEEL	COMMERCIAL	#0.625 RND
1	19830-22	12 KNOB		6081-18 ALUMINUM	Q2-A-200-B	#0.75 RND
1	19830-21	11 STOP		6081-18 ALUMINUM	Q2-A-200-B	#0.625 RND
1	19830-11	10 GUIDE		304 STAINLESS STEEL	ASTM A269	#0.75 x 0.085 RND TUBE
1	19830-20	09 CAP		321 STAINLESS COND. A	AMS 5510	0.025 SHEET
1	19830-19	08 CAP		321 STAINLESS COND. A	AMS 5510	0.025 SHEET
1	19830-07	07 BLOCK		304 STAINLESS STEEL	ASTM A479	0.25 x 0.125 RND
1	19830-18	06 STRAP		304 STAINLESS STEEL	MLL-S-5058	0.100 SHEET
2	19830-15	05 BUSHING		304 STAINLESS STEEL	ASTM A213	#0.625 x 0.120 TUBE
1	19730-04	04 CAP		321 STAINLESS COND. A	AMS 5510	0.025 SHEET
1	19730-03	03 TUBE		304 STAINLESS STEEL	ASTM A554	2 X 1 X 0.12 TUBE
1	19730-02	02 DOWN TUBE		304 STAINLESS STEEL	ASTM A554	2 X 1 X 0.12 TUBE
1	19730-01	01 FORWARD BEAM ASSEMBLY				
QTY	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
APPROVALS			DATE			
DRAWN: JEFF CLARKE			01 OCT 2008			
CHECKED: E. BURGON						
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON:			AERO DESIGN LTD. CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAR 820M 2013 - 50TH AVENUE N.E., CALGARY, ALBERTA, CANADA. Y5B 6B7 Tel: (403) 250-8027 Fax: (403) 250-8333 www.aerocanada.ca			
DECIMALS			BEL 206B			
X.XXX ±0.010			QUICK RELEASE MOUNTING POISONS			
X.XX ±0.03			FORWARD BEAM FABRICATION			
X.X ±0.1			SCALE: 1 = 1			
			SHEET 1 OF 2			
			A1 49730 2			

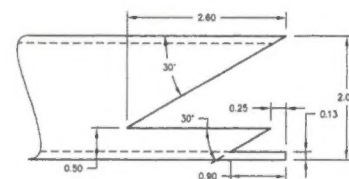
THIS DRAWING CONTAINS INFORMATION AND DATA WHICH IS PROPRIETARY TO AERO DESIGN LTD. THIS DRAWING OR ANY PORTION THEREOF, MAY NOT BE REPRODUCED, COPIED, OR DISSEMINATED IN ANY MANNER, NOR USED FOR MANUFACTURING WITHOUT THE WRITTEN CONSENT OF AERO DESIGN LTD. BY ACCEPTING THIS DRAWING FOR REFERENCE, THE RECIPIENT AGREES TO HOLD AERO DESIGN LTD. HARMLESS FROM THE USE, OR ABUSE, OF THIS DRAWING OR THE INFORMATION CONTAINED HEREIN.		INITIALS	DATE
REV	DESCRIPTION OF CHANGE		
0	INITIAL ISSUE		



DETAIL B
SCALE 1 : 1



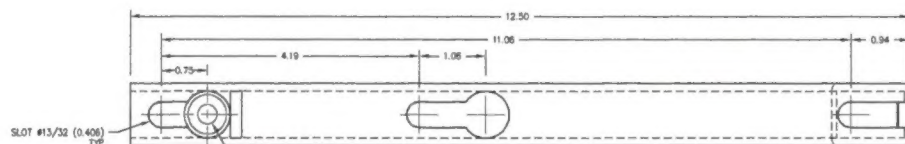
01 AFT BEAM ASSEMBLY



DETAIL A
SCALE 1 : 1

NOTES

1. REMOVE ALL BURRS AND BREAK SHARP EDGES.
2. WELDING OF STEEL TO BE COMPLETED BY GTAW METHOD TO AMS2685C. WELDING ROD SHALL CONFORM TO ER308L OR EQUIVALENT FOR STAINLESS STEEL.
3. ALL STEEL PARTS TO BE THOROUGHLY DEGREASED AND POWDER COATED PRIOR TO INSTALLATION.



02 DOWN TUBE
SCALE 1 : 1

PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
01	MS21044C3	NUT	STAINLESS STEEL	COMMERCIAL	
1	#10-32	C/SUNK SCREW	STAINLESS STEEL	COMMERCIAL	15mm x 70mm SPRING
1	69830-23	13 SPRING	6061-T6 ALUMINUM	QQ-A-200/B	40.75 ROD
1	69830-22	12 KNOB	6061-T6 ALUMINUM	QQ-A-200/B	#0.625 ROD
1	69830-21	11 STOP	304 STAINLESS STEEL	ASTM A269	#0.75 X 0.065 RND. TUBE
1	69830-11	10 GUIDE	321 STAINLESS COND. A	AMS 5510	0.025 SHEET
1	69830-19	09 CAP	304 STAINLESS STEEL	ASTM A479	0.188 SCR. ROD
1	69830-07	08 BLOCK	304 STAINLESS STEEL	MIL-S-9259	0.100 SHEET
1	69830-16	07 STRAP	304 STAINLESS STEEL	ASTM A213	#0.625 X 0.120 TUBE
2	69830-15	06 BUSHING	321 STAINLESS COND. A	AMS 5510	0.025 SHEET
1	49731-05	05 CAP	304 STAINLESS STEEL	ASTM A554	1.5 X 1 X 0.12 TUBE
1	49731-04	04 TUBE	304 STAINLESS STEEL	ASTM A554	2 X 1 X 0.12 TUBE
1	49731-03	03 TUBE	304 STAINLESS STEEL	ASTM A554	2 X 1 X 0.12 TUBE
1	49731-02	02 DOWN TUBE	304 STAINLESS STEEL	ASTM A554	2 X 1 X 0.12 TUBE
1	49731-01	01 AFT BEAM ASSEMBLY			

APPROVALS		DATE	AERO DESIGN LTD.	
DRAWN:	JEFF CLARKE	01 OCT 2008	CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAR 890M	
CHECKED:	E. BURGOIN		2013 - 39TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6R7	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON:			BELL 206B QUICK RELEASE MOUNTING PROVISIONS AFT BEAM FABRICATION	
DECIMALS	ANGLES		SCALE 1 : 2	REV.
X.XXX ±0.010	±1/2°		A1	49731
X.XX ±0.03				0
X.X ±0.1				

1	68830-10	1	CAP	321 STAINLESS STEEL	A1MS S510	MIN 0.025 SHEET	
2	78633-05	10	STOP BRACKET	304 STAINLESS STEEL	ASTM A554	0.75 X 0.065 GOM TUBE	
2	78633-03	09	GUIDE	304 STAINLESS STEEL	ASTM A240	1.0 X 0.125 BAR	
1	49732-08	08	UPPER GUIDE	304 STAINLESS STEEL	ASTM A554	1.1 X 2 X 0.125 TUBE	
1	68830-16	07	STRAP	304 STAINLESS STEEL	MS-3-5059	0.100 SHEET	
2	68830-15	06	BUSHING	304 STAINLESS STEEL	ASTM A215	#0 625 X 0.120 TUBE	
1	49731-05	05	CAP	321 STAINLESS COND. A1	MS S510	MIN 0.025 SHEET	
1	49731-04	04	TUBE	304 STAINLESS STEEL	A1MS S510	1.5 X 1 X 0.12 TUBE	
1	49731-03	03	TUBE	304 STAINLESS STEEL	ASTM A554	2 X 1 X 0.12 TUBE	
1	49732-02	02	DOWN TUBE	304 STAINLESS STEEL	ASTM A554	2 X 1 X 0.12 TUBE	
	49732-01	01	AF BEAM ASSEMBLY				
Q2	DI	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
QTY	QTY				LIST OF MATERIALS		
APPROVALS DATE DRAWN: JEFF CLARKE 11 MAR 2013 CHECKED: E. BURGIN 11 MAR 2013				AERO DESIGN LTD. CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAB 200M 2013 - 39TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6B7 Tel: (403) 250-6887 Fax: (403) 250-6883 www.aerodesign.ca			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2° X.XX ±0.03 X.X ±0.1				BELT 206B QUICK RELEASE MOUNTING PROVISIONS AF BEAM FABRICATION			
SCALE 1 : 2 SHEET 1 OF 1				DIM. SIZE DIM. NO. REV. A1 49732 0			